ABSTRACT

Methods and apparatus are presented for efficient broadcasting in wireless packet data systems. A single MAC_ID is used for broadcasting to a group of subscribers. By using the channel quality information of the group of subscribers, a base station determines the identity of the subscriber with the worst channel conditions. The timing and the transmission format of the multi-cast are then tailored so that the subscriber with the worst channel conditions is capable of recovering the transmission. If the timing and the transmission format is chosen in relation to subscriber with the worst channel conditions, it is probable that other subscribers will be able to recover the transmission as well. Hence, only a single MAC_ID need to be used to make a single broadcast, rather than sending multiple transmissions to multiple subscribers.